Wisconsin Department of Natural Resources Specification
S100 Compost

1. SCOPE

Compost is a mixture that consists largely of aerobically decayed organic waste. This specification outlines the minimum material requirements for compost intended to be used in accordance with the criteria of Wisconsin Department of Natural Resources (WDNR) Stormwater Management technical standards. Compost meeting this specification is appropriate to use for compaction mitigation and as the component of an engineered soil mixture.

2. MATERIAL REQUIRMENTS. The following material requirement shall be met:

a. Particle Size – 98% of the compost shall pass through a 0.75-inch screen.

b. Physical Contaminants – Less than 1% combined glass, metal and plastic.

c. Organic Matter/Ash Content – At least 40% organic matter; less than 60% ash content.

d. Carbon to Nitrogen Ratio – 10-20:1 C:N ratio.

e. pH – Between 6 and 8.

f. Soluble Salts – Electrical conductivity below 10 dS m^{-1} (mmhos cm -1)

g. Moisture Content – Between 35% and 50% by weight.

h. Maturity – The compost shall be resistant to further decomposition and free of compounds, such as ammonia and organic acids, in concentrations toxic to plant growth.

i. Residual Seeds & Pathogens – Pathogens and noxious seeds shall be minimized.

j. Pathogens – The compost shall meet the Class A requirements for pathogens as specified in s. NR 204.07(6)(a), Wis. Adm. Code.

k. Other Chemical Contaminants – The compost shall meet the high quality pollutant concentrations as specified in s. NR 204.07(5)(c), Wis. Adm. Code.

3. REFERENCES

Further information regarding compost may be obtained from the US Compost Council website: www.compostingcouncil.org

Brewer, L.J and D.M. Sullivan 2003. Maturity and Stability Evaluation of Composted Yard Trimmings. Compost Science and Utilization. Spring, 2003. pp 96-112.

Cooperband, Leslie. 2002. The Art and Science of Composting. University of Wisconsin-Madison Center for Integrated Agricultural Systems. 14 pp.

United States Environmental Protection Agency. 1997. Innovative Uses of Compost: Bioremediation and Pollution Prevention. EPA530-F-97-042. 6 pp.

Woods End Research Laboratory. 1999. Guide to Solvita™ Testing for Compost Maturity Index [Online]. Available at http://www.woodsend.org.

[1] Words in the standard that are shown in italics are described in X. Definitions. The words are italicized the first time they are used in the text.